

## CLAIMS

I claim:

1. A method for determining similarities in images of tissue comprising:
  - (a) acquiring pre-deformed images of a tissue sample;
  - (b) acquiring post-deformed images of the tissue sample;
  - (c) generating a model and a system based upon the pre-deformed and post-deformed images;
  - (d) calculating, using a similarity metric, a change in regional mutual information based upon the model;
  - (e) selecting and perturbing a property in the model in order to solve the system; and
  - (f) identifying elasticity anomaly regions within the tissue sample utilizing the solved system.